High precision air pressure sensor





The Digital Barometer 8127

is a new generation barometer, designed for a wide range of high-end atmospheric pressure measurement. The pressure measurement of the 8127 is based on an in-house, silicon capacitive, absolute pressure sensor. It provides high measurement accuracy and excellent long-term stability.

High Accuracy

The 8127 is highly accurate. The Class A barometers for the most demanding applications are fine-tuned and calibrated against a high-precision pressure calibrator.

Applications

The 8127 can be used successful for aviation, professional meteorology and for demanding industrial pressure measurement Applications.

Features

Accurate measurement

Maximum pressure limit

- Excellent long-term stability
- Added reliability through redundancy
- For professional meteorology and aviation, laboratories, demanding industrial application

Technical Data

Barometric pressure range	500 1100 hPa
Linearity*	±0.05 hPa
Hysteresis*	±0.03 hPa
Repeatability*	±0.03 hPa
Calibration uncertainty**	±0.07 hPa
Accuracy at +20 °C (+68 °F) ***	±0.10 hPa
Temperature dependence ****	±0.1 hPa
Total accuracy -40 60 °C	±0.15 hPA
Long-term stability	±0.1 hPa/year
Temperature range	-40 +60 °C

Serial I/O Resolution Settling time at power-up	RS485 0.01 hPa 4 s
Response time	2 s
Supply voltage Typical power consumption at +20 °C	10 35 VDC
(Uin 24 VDC; RS-485)	40 mA
Housing classification Housing material	IP65 G AlSi10 Mg (DIN 1725)

Compliance EMC standard EN61326-1:1997

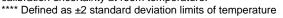
+ Am1:1998

+ Am2:2001: Industrial Environment

* Defined as ±2 standard deviation limits of endpoint non-linearity, hysteresis or repeatability error.

** Defined as ±2 standard deviation limits of inaccuracy of the working standard including traceability to NIST.

^{***} Defined as the root sum of the squares (RSS) of endpoint non-linearity, hysteresis error, repeatability error and calibration uncertainty at room temperature.





5000 hPa abs.